

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Characterizing Fetal Alcohol Spectrum Disorder in Canada: A national database protocol study
<b>AUTHORS</b>	Cook, Jocelynn; Unsworth, Kathy; Flannigan, Katherine

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Bower, Carol Telethon Kids Institute
<b>REVIEW RETURNED</b>	26-Jan-2021

<b>GENERAL COMMENTS</b>	<p>The authors make a good case for establishing a national FASD database, and acknowledge the major strengths and limitations. Engagement with stakeholders and the feedback processes are commendable. However, in a paper on establishing a protocol for building a national FASD database, I would have expected more information on how the clinics were enlisted, how the patients and public (in Canada and internationally) were identified and involved, and how decisions were made about what to include on the database, beyond it being 'a rigorous process'. While informative, much of the paper relates to the protocols for using the data on the database, rather than establishing the database in the first place. Given that some of the research questions to be answered require data on non-FASD general population or neurotypical populations for comparison, further information on the possible sources of these data would be valuable.</p> <p>29 clinics are currently contributing to the database out of approximately 60 in Canada – this is a great start but it is not most, as stated (point 4 in the strengths and limitations list). Does the coded prenatal alcohol exposure absent (confirmed) mean no prenatal alcohol exposure at all or no confirmed threshold exposure?</p> <p>A couple of typos noted: Line 3 p12: ...the trajectory of physican and mental health co-morbidities across... Should this be physical? Line 8 p12.... developing the datafields the comprise the...</p>
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<b>REVIEWER</b>	Petrenko, Christie University of Rochester
<b>REVIEW RETURNED</b>	06-Apr-2021

<b>GENERAL COMMENTS</b>	This manuscript describes the development and analytic protocol for the Canadian National FASD Database. This Database was initiated in 2010 and represents a valuable and significant collaborative effort to obtain clinical data to inform research, practice, and policy priorities across Canada. The engagement of
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	<p>the public, patients, and clinicians in developing the Database variables and research questions is a notable strength. I commend the authors for their efforts in this large endeavor and appreciate the documentation of this work in this manuscript. In addition to its utility as a detailed reference for studies publishing from the Database, it also has practical implications for other entities who are interested in replicating or adapting this work. The manuscript is well-written and the rationale is clearly articulated. Strengths and limitations of this work are appropriately balanced.</p> <p>I offer a few comments for further consideration:</p> <ol style="list-style-type: none"> <li>1. The goal of identifying strengths is mentioned in the abstract and several times in the manuscript. However, no items specifically ask about strengths in the Dataform. A strength is not necessarily the same thing as the absence of impairment. More information could be provided on how strengths are being conceptualized in this dataset, emphasis reduced, or it could be noted as a limitation. Obviously, not everything can be included in such a Dataform that needs to be concise enough to promote use across varied sites.</li> <li>2. The paragraph under the heading Fetal Alcohol Spectrum Disorder on page 7 is accurate, but largely deficit-focused. A mention of the limited research on strengths could add some balance here.</li> <li>3. On page 9, the first research question about functional profiles includes a comparison to individuals without FASD in the general population. This is an important question, yet the Database is not set up to answer this. Further in the methods, it is mentioned that prevalence data (e.g., comorbidities) will be compared to rates in neurotypical populations. This seems reasonable for research question 2 examining health outcome rates, but it is unclear what existing data source would be applicable for the functional profile of neurodevelopmental outcomes.</li> <li>4. The engagement of key stakeholders in developing the database and primary research questions is an important strength of this work. Further details about this process would likely be of great interest to the reader. For example, how was input gathered (e.g., surveys, focus groups, town halls, etc)? How many people contributed of each type and from what regions?</li> </ol> <p>Thank you for the opportunity to review this manuscript.</p>
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## VERSION 1 – AUTHOR RESPONSE

### Reviewer 1:

1. In a paper on establishing a protocol for building a national FASD database, I would have expected more information on how the clinics were enlisted, how the patients and public (in Canada and internationally) were identified and involved, and how decisions were made about what to include on the database, beyond it being ‘a rigorous process’. While informative, much of the paper relates to the protocols for using the data on the database, rather than establishing the database in the first place.

Much more detail was added to the manuscript related to decision-making with respect to indicator development, the role of families, policy makers, clinicians and researchers, and stakeholder engagement, and was included in the section on patient and public involvement.

2. Given that some of the research questions to be answered require data on non-FASD general population or neurotypical populations for comparison, further information on the possible sources of these data would be valuable.

We have clarified that, to compare the rates of co-occurring physical and mental health conditions in FASD with those in the general population, we will utilize existing data published in the academic and grey literature, and have provided examples.

29 clinics are currently contributing to the database out of approximately 60 in Canada – this is a great start but it is not most, as stated (point 4 in the strengths and limitations list).

Agree and we are working hard to have others join the project – 10 more are in various stages of participation!

Does the coded prenatal alcohol exposure absent (confirmed) mean no prenatal alcohol exposure at all or no confirmed threshold exposure?

We have clarified this with the following sentence:

Moreover, although “confirmed absent” PAE refers to no alcohol exposure, and confirmed PAE indicates exposure “at or above risk levels” as specified in the Canadian Diagnostic Guideline, exposure levels between ‘none’ and ‘above risk’ are not captured.

A couple of typos noted:

Line 3 p12: ...the trajectory of physican and mental health co-morbidities across... Should this be physical?

Line 8 p12.... developing the datafields the comprise the...

These have been corrected. Thank you!

Reviewer 2:

1. The goal of identifying strengths is mentioned in the abstract and several times in the manuscript. However, no items specifically ask about strengths in the Dataform. A strength is not necessarily the same thing as the absence of impairment. More information could be provided on how strengths are being conceptualized in this dataset, emphasis reduced, or it could be noted as a limitation. Obviously, not everything can be included in such a Dataform that needs to be concise enough to promote use across varied sites.

We agree with this point entirely and discussed it at length. We have added the following statement to the limitations section:

Importantly, although the Database provides a mechanism for uncovering areas of relative strength or absence of deficit among individuals assessed for FASD, in future iterations of the Database we will consider more targeted approaches and methods for identifying strengths-based characteristics, skills and assets that may be leveraged to support positive outcomes in this population.

2. The paragraph under the heading Fetal Alcohol Spectrum Disorder on page 7 is accurate, but largely deficit-focused. A mention of the limited research on strengths could add some balance here.

This is a very important point: we have added the following paragraph under the heading Fetal Alcohol Spectrum Disorder:

That said, there is very limited research that focuses on the strengths of individuals with FASD, and this is a critical gap in order to implement strengths-based approaches and interventions. [17] For example, one study identified predictive factors that contribute to success in occupational performance in youth and adults with FASD, [18] another small study reported on factors that influence success in school, [19] and others have reported on factors that contribute to positive outcomes among adults with FASD who are involved in the justice system.[20]

3. On page 9, the first research question about functional profiles includes a comparison to individuals without FASD in the general population. This is an important question, yet the Database is not set up to answer this. Further in the methods, it is mentioned that prevalence data (e.g., comorbidities) will be compared to rates in neurotypical populations. This seems reasonable for research question 2 examining health outcome rates, but it is unclear what existing data source would be applicable for the functional profile of neurodevelopmental outcomes.

We have clarified that, to compare the rates of co-occurring physical and mental health conditions in FASD with those in the general population, we will utilize existing data published in the academic and grey literature, and have provided examples.

4. The engagement of key stakeholders in developing the database and primary research questions is an important strength of this work. Further details about this process would likely be of great interest to the reader. For example, how was input gathered (e.g., surveys, focus groups, town halls, etc)? How many people contributed of each type and from what regions?

Much more detail was added to the manuscript related to decision-making with respect to indicator development, the role of families, policy makers, clinicians and researchers, and stakeholder engagement, and was included in the section on patient and public involvement. We included processes used, including workshops and surveys as well as the numbers of participants.

Thank you once again for your attention to our manuscript – please let us know if there are any additional requirements or clarifications.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Bower, Carol Telethon Kids Institute
<b>REVIEW RETURNED</b>	21-Jun-2021

<b>GENERAL COMMENTS</b>	The reviewers' comments have been satisfactorily addressed. There are several typographical errors introduced as a result of the edits that need correction.
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<b>REVIEWER</b>	Petrenko, Christie University of Rochester
<b>REVIEW RETURNED</b>	07-Jul-2021

<b>GENERAL COMMENTS</b>	Thank you for the opportunity to review this manuscript. The authors were generally responsive to reviewers' comments.  A couple of very minor points are offered:
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	<p>1) In the section on "process of stakeholder engagement," some minor clarification could be helpful. Specifically, it states a survey was administered to 7 partner provinces/territories. Who within these provinces/territories received or completed the survey? Was this open to anyone, specific organizations, etc? In addition, it states that multidisciplinary clinics were identified as a priority. What about the clinics were seen as a priority? Do you mean having more of them? Or consistency in some way?</p> <p>2) A few minor typos or missing words were also noted (generally around tracked changes), but these could be addressed in copy-editing.</p>
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## VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

The reviewers' comments have been satisfactorily addressed. There are several typographical errors introduced as a result of the edits that need correction.

We have corrected the typographical errors.

Reviewer: 2

A couple of very minor points are offered:

1) In the section on "process of stakeholder engagement," some minor clarification could be helpful. Specifically, it states a survey was administered to 7 partner provinces/territories. Who within these provinces/territories received or completed the survey? Was this open to anyone, specific organizations, etc? In addition, it states that multidisciplinary clinics were identified as a priority. What about the clinics were seen as a priority? Do you mean having more of them? Or consistency in some way?

Thank you for these important observations. We have clarified the points as the following:

In 2005, the Canada Fetal Alcohol Spectrum Disorder Research Network (CanFASD) administered a survey to the designated Departmental leads from the seven provincial/territorial ministries that supported the research to identify current and future priorities for FASD-related research, projects, and programs.

And

One of the top identified priority areas was to build the capacity of multidisciplinary diagnostic clinics to work together to contribute evidence to the field of FASD diagnosis in Canada

2) A few minor typos or missing words were also noted (generally around tracked changes), but these could be addressed in copy-editing.

We have addressed typos.

Thank you once again for your attention to our manuscript – please let us know if there are any additional requirements or clarifications.